

Application No. 10/814,141

Docket No. 0630-1979P

**REMARKS****Summary of the Office Action**

Claims 1, 20 and 24 are objected to because of various informalities. Further, claims 1, 2, 15 and 16 are rejected under 35 U.S.C. §103(a) as being unpatentable over Deane et al., U.S. Patent No. 6,686,229 in view of official notice/Applicants' disclosed related art, in view of Chae, US 2002/0135710, and further in view of Baughman et al., U.S. Patent No. 5,441,593. Further, claims 20, 21 and 23 are rejected under 35 U.S.C. §103(a) as being unpatentable over Deane et al., U.S. Patent No. 6,686,229 in view of official notice/Applicants' disclosed related art, and further in view of Baughman et al., U.S. Patent No. 5,441,593. Further, claim 24 is rejected under 35 U.S.C. §103(a) as being unpatentable over Deane et al., U.S. Patent No. 6,686,229 in view of official notice/admitted prior art, in view of Chae, US 2002/0135710, and further in view of Yoshida et al., U.S. Patent No. 5,315,196.

**Summary of the Response to the Office Action**

Claims 1, 20 and 24 have been amended to more particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. Further, claims 2 and 21 have been cancelled. Accordingly, claims 1, 15-16, 20 and 23-24 are presently pending.

**Objections to Claims**

In claim 1, the phrase "and injecting a resist" has been deleted. Further, in claims 1 and 20, the phrase "forming a gate line on a substrate" has been amended to recite "forming a gate line on the substrate." Further, in claim 24, the phrase "to re-transferring" has been amended to "to re-transfer". Further, in claim 24, the phrase "sequentially removing the conductive layer including the high-concentrated N+ layer above the channel region by using the photoresist layer pattern as a mask to source/drain electrodes" has been deleted and the phrase was added to recite "removing the conductive layer and the high-concentrated N+ layer on the channel region to form source and drain electrodes electrically separated from each other."

Applicants submit that these amendments correct the deficiencies pointed out by the Examiner. Accordingly, Applicants respectfully request that the objections of claims 1, 20 and 24 be withdrawn.

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**Rejection to 35 USC § 103(a)**

Claims 1, 2, 15 and 16 are rejected under 35 U.S.C. §103(a) as being unpatentable over Deane et al., in view of official notice/Applicants' disclosed related art, in view of Chae, and further in view of Baughman et al. Claims 20, 21 and 23 are rejected under 35 U.S.C. §103(a) as being unpatentable over Deane et al., in view of official notice/Applicants' disclosed related art, and further in view of Baughman et al. Claim 24 is rejected under 35 U.S.C. §103(a) as being unpatentable over Deane et al., in view of official notice/Applicants' disclosed related art, in view of Chae, and further in view of Yoshida et al.

Applicants respectfully traverse these rejections as being based on references that neither describe nor suggest the novel combination of features now recited independent claims 1, 20 and 24, as amended. For example, independent claim 20 has been amended to recite, among other features, "exposing a part of the active photoresist pattern on a channel region by using a mask for controlling an optical amount and removing the exposed active photoresist pattern on a channel region to form a stepped active photoresist pattern, wherein a degree of the removed active photoresist pattern is different at time of development according to the degree of exposure to light; patterning the conductive layer, the impurity-doped layer and the semiconductor layer by using the stepped active photoresist pattern as a mask; ashing a part of the stepped active photoresist pattern to remove the photoresist pattern on the channel region; removing the conductive layer and the impurity-doped layer on the channel region to form source and drain electrodes electrically separated from each other; removing the active photoresist pattern." Amended independent claim 24 includes similar features in a varying scope. Further, for example, independent claim 1 has been amended to recite, among other features, "removing the conductive layer by using the photoresist layer pattern as a mask to form source and drain electrodes; removing the high-concentrated N<sup>+</sup> layer above a channel region by using the photoresist layer pattern as a mask; removing the photoresist layer pattern; forming a passivation layer over the source/drain electrode; forming a contact hole photoresist pattern over the passivation layer by printing process using the thermal transfer injection nozzle; removing the passivation layer by using the contact hole photoresist pattern as a mask to form a contact hole; removing the contact hole photoresist pattern; forming a pixel electrode layer over the passivation layer and the contact hole; forming a pixel electrode photoresist pattern over the

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pixel electrode layer by printing process using the thermal transfer injection nozzle; and removing the pixel electrode layer by using the pixel electrode photoresist pattern as a mask to form a pixel electrode."

In contrast to the claimed invention, the cited references including Deane et al., official notice/Applicants' disclosed related art, Baughman et al., Chae and Yoshida et al. fail to teach or suggest "exposing a part of the active photoresist pattern on a channel region by using a mask for controlling an optical amount and removing the exposed active photoresist pattern on a channel region to form a stepped active photoresist pattern, wherein a degree of the removed active photoresist pattern is different at time of development according to the degree of exposure to light," as recited in amended independent claims 20 and 24 of the present application. Further, in contrast to the claimed invention, the cited references including Deane et al., official notice/Applicants' disclosed related art, Baughman et al., Chae and Yoshida et al. fail to teach or suggest the features of amended independent claim 1.

Thus, Applicants respectfully assert that the cited references including Deane et al., official notice/Applicants' disclosed related art, Baughman et al., Chae and Yoshida et al. do not teach or suggest each and every feature recited in independent claims 1, 20 and 24, as amended. Accordingly, Applicants respectfully request that the 35 U.S.C. § 103(a) rejections of independent claims 1, 20 and 24, as amended, be withdrawn. Further, Applicants respectfully request that the 35 U.S.C. 103(a) rejections of dependent claims 15-16 and 23 be withdrawn at least because of their dependence on independent claims 1 and 20, and/or for additional features that they recite.

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**CONCLUSION**

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Jun S. Ha, Registration No. 58,508, at (703) 205-8000, in the Washington, D.C. area.

Prompt and favorable consideration of this Amendment is respectfully requested.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 

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